

We claim:

1. An interlocking joint arrangement for mounting a generally circular cutting head for slicing a food product on a slicing machine, the slicing machine including a rotary impeller arranged to be driven in an intended driving direction of rotation about an axis of rotation located concentrically within the cutting head when the cutting head is mounted on the slicing machine, the slicing machine including a support ring fixedly mounted thereto and the cutting head including an annular mounting ring coaxially connected to a bottom portion thereof, the joint arrangement comprising:

the support ring comprising a ring portion having upper and lower surfaces and a plurality of circumferentially spaced flange segments projecting radially from the ring portion, each of said flange segments including a radially and axially extending flange surface oriented to extend at an angle relative to the axis of the support ring in an inclined direction from a forward radial edge adjacent the lower surface of the support ring directed upwardly to a rearward radial edge adjacent the upper surface of the support ring on an end of the flange segment generally opposed to a driving direction of rotation of an impeller within the cutting head; and

the mounting ring having upper and lower surfaces and a plurality of circumferentially spaced protrusions extending axially therefrom, each of said protrusions provided with a protrusion surface oriented to extend at an angle relative to the axis of the mounting ring within an inclined direction relative to a forward radial edge directed upwardly to a rearward radial edge adjacent the lower surface of the mounting ring on an end of the protrusion generally leading in a driven direction of rotation of an impeller within the cutting head;

wherein said protrusion surfaces are complimentary shaped to the flange surfaces, said mounting ring positionable on the support ring so that the protrusion surfaces are mutually engageable face-to-face with the flange surfaces.

2. The ring assembly according to claim 1, wherein the protrusion surfaces are configured diagonally opposite the flange surfaces when the lower surface of

the mounting ring is disposed on the upper surface of the support ring and concentric therewith with the protrusions and flange segments interdigitated.

3. The ring assembly according to claim 1, wherein the support ring further includes an annular lip axially extending from the upper surface thereof having an inner circumference generally concentric with an inner peripheral circumference of the support ring and an outer circumference between the inner and outer peripheral circumferences of the support ring, an annular receiving area on the upper surface of the support ring radially extending from the outer circumference of the annular lip to the outer peripheral circumference of the support ring.

4. The ring assembly according to claim 3, wherein the mounting ring has an inner peripheral circumference sized to be received by the annular lip of the support ring and received by the annular receiving area of the support ring, the inner peripheral circumference of the mounting ring having a diameter substantially the same as the outer circumferential diameter of the annular lip.

5. The ring assembly according to claim 4, wherein the mounting ring has an outer circumference with a diameter substantially the same as the outer circumference of the support ring.

6. A ring assembly having an interlocking joint arrangement, comprising:
a support ring comprising a ring portion having upper and lower radial surfaces with a plurality of circumferentially spaced flange segments projecting radially therefrom, each of said flange segments provided with an inclined surface oriented to extend at an angle inclined relative to the axis of the support ring; and
a mounting ring having upper and lower radial surfaces and a plurality of circumferentially spaced projections extending axially from the lower surface, each of said protrusions provided with an inclined surface oriented to extend at an angle inclined relative to the axis of the mounting ring, said inclined surfaces of the protrusions complimentary shaped to said inclined surfaces of the flange segments;

wherein the lower surface of the mounting ring is configured so as to be received by the upper surface of the support ring in a coaxial relationship with the support ring with the flange segments interdigitated with the protrusions and such that the inclined surfaces of the protrusions mutually engage face-to-face with the inclined surfaces of the flange segments.

7. The ring assembly according to claim 6, wherein the inclined surfaces of the protrusions are configured diagonally opposite the inclined surfaces of the flange segments when the lower surface of the mounting ring is received on the upper surface of the support ring and coaxial therewith.

8. The ring assembly according to claim 6, wherein the inclined surfaces of the flange segments have a rearward edge generally adjacent to the upper surface of the support ring and an opposite forward edge generally adjacent the lower surface of the support ring and in a circumferentially spaced relationship relative to the rearward edge, the inclined surfaces of the protrusions having a rearward edge generally adjacent the lower surface of the mounting ring and defining a corner therewith and an opposite forward edge in a circumferentially spaced relationship relative to the rearward edge.

9. The ring assembly according to claim 6, wherein the support ring further includes an annular lip axially extending from the upper surface thereof having an inner circumference generally concentric with an inner peripheral circumference of the support ring and an outer circumference between the inner and outer peripheral circumferences of the support ring, an annular receiving area on the upper surface of the support ring radially extending from the outer circumference of the annular lip to the outer peripheral circumference of the support ring.

10. The ring assembly according to claim 9, wherein the mounting ring has an inner peripheral circumference sized to be received by the annular lip of the support ring and received by the annular receiving area of the support ring, the

inner circumference of the mounting ring having a diameter substantially the same as the outer circumference of the annular lip.

11. The ring assembly according to claim 10, wherein the mounting ring has an outer circumference with a diameter substantially the same as the outer peripheral circumference of the support ring.

12. A ring assembly having an interlocking joint arrangement, comprising:
a first ring having a plurality of circumferentially spaced flange segments radially extending therefrom each with a first radially and axially extending interlocking surface; and

a second ring having a plurality of circumferentially spaced radially extending protrusions each having a radially and axially extending second interlocking surface;

wherein said first and second interlocking surfaces when interdigitated and placed adjacent each other define an anti-rotation and hold-down coupling restraining the rings against relative rotation about their axes and axially separating from each other.

13. An interlocking joint arrangement for mounting a generally circular cutting head for slicing a food product on a slicing machine, the slicing machine including a rotary impeller arranged to be driven in an intended driving direction of rotation about an axis of rotation located concentrically within the cutting head when the cutting head is mounted on the slicing machine, the slicing machine including a support ring fixedly mounted thereto and the cutting head including an annular mounting ring coaxially connected to a bottom portion thereof, the joint arrangement comprising:

the support ring having a plurality of circumferentially spaced flange segments radially extending therefrom each with a first radially and axially extending interlocking surface; and

the mounting ring having a plurality of circumferentially spaced axially extending protrusions each having a radially and axially extending second

interlocking surface;

wherein said first and second interlocking surfaces when interdigitated and placed adjacent each other define an anti-rotation and hold-down coupling restraining the support and mounting rings against relative rotation about their axes and axially separating from each other.